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Dawn Mission Outreach E-News, 9th Edition

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June 2006

### **A MESSAGE FROM THE PRINCIPAL INVESTIGATOR**

After NASA reinstated the mission this spring, the Dawn project has been staffing up and returning to the level of effort necessary to proceed to launch in June of 2007. Our team welcomed Project Manager Keyur Patel and his deputy Mike Sierchio, both of whom have joined Dawn from Deep Impact and will lead the mission to launch and completion of operations. The project's engineers have resumed spacecraft integration and testing activities. The last subsystem to be delivered, the power propulsion unit, has successfully completed its thermal vacuum test and is ready to be installed in the spacecraft. Other systems that needed refurbishment are also ready for installation. The spacecraft now has power applied and flight software installed and is undergoing a series of comprehensive tests to demonstrate that it is ready for launch.

Also, these past months, we have been replanning the Dawn trajectory. Due to the use of a Mars Gravity Assist in 2009, which fixes the timing of subsequent events, the launch delay does not significantly affect the timing of the arrivals and departures at Vesta and Ceres, nor the science operations. However, if we were not able to launch by the end of October 2007, then the dual asteroid mission would not be possible for another 15 years. Thus, it is very fortunate that this mission was approved to go forward at this time.

With launch approximately one year away, we invite you to join in the excitement of the Dawn mission by visiting our Web site at: <http://dawn.jpl.nasa.gov>.

Chris Russell  
Dawn Principal Investigator

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### **DAWN CHARTS A NEW COURSE**

The Dawn spacecraft's eight-year journey through the asteroid belt is captured in a single image. Check out the new trajectory at:

<http://dawn.jpl.nasa.gov/mission/trajectory.asp>

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### **NEW DAWN SPACECRAFT IMAGES**

See new images of the Dawn spacecraft, taken after the installation of the high gain antenna, in the online Mission Image Gallery at:

[http://www.dawn-mission.org/multimedia/spacecraft\\_index.asp](http://www.dawn-mission.org/multimedia/spacecraft_index.asp)

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### **AN INSIDE PERSPECTIVE OF THE DAWN MISSION**

"Travels far from Earth, exploration of new worlds, ion propulsion, rocket science, amazing feats of engineering, new scientific understandings, probably some disappointments and scares but certainly some drama and thrills—all this lies ahead on this futuristic mission." Dawn's Project Systems Engineer Marc Rayman chronicles the excitement of launch preparations and will share future details of the ensuing voyage in his Dawn Journal. For a witty and informative glimpse into the Dawn mission, read Marc's journal entries at:

<http://dawn.jpl.nasa.gov/mission/journal.asp>

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### **SUMMER FUN WITH DAWN KIDS**

Solve a puzzle, build a paper model spacecraft, illustrate a story, play a Web-based interactive game, and more! Dawn Kids offers a host of activities to fill young space enthusiasts' summer days with fun. Activities may be accessed and downloaded from:

<http://dawn.jpl.nasa.gov/DawnKids/index.asp>

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### **SEND YOUR NAME TO THE ASTEROID BELT**

If you haven't climbed aboard the Dawn spacecraft yet, here's another chance to virtually travel to the asteroid belt. Include your name on a microchip that will accompany Dawn on its journey to Vesta and Ceres. All previous submissions have been saved, so there's no need to reenter your name. First-timers can climb aboard by simply going to:

[http://dawn.jpl.nasa.gov/DawnCommunity/Sendname2asteroid/index\\_asteroid\\_blt.aspx](http://dawn.jpl.nasa.gov/DawnCommunity/Sendname2asteroid/index_asteroid_blt.aspx)

NOTE: Once you have entered your name, a certificate will appear. Remember to hit the "Print" button, as this is your only opportunity to print your "name onboard" verification.

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### **UPCOMING EDUCATION AND PUBLIC OUTREACH (E/PO) EVENTS**

Discovery Program E/PO was honored with an invitation to demonstrate NASA science materials (including materials from Dawn) for use in afterschool programs during the Coalition for Science After School's (CSAS) reception at the 21st Century Community Learning Centers Summer Institute in San Diego on July 10.

This fall, September 16–18, Dawn E/PO team members will be attending the Astronomical Society of the Pacific's national conference in Baltimore, Maryland. The focus of this conference is "Engaging the EPO Community: Best Practices, New Approaches."

For more information about these upcoming events, go to:

<http://dawn.jpl.nasa.gov/education/index.asp>

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### **ATTENTION: INFORMAL SCIENCE EDUCATORS**

Are you interested in participating in a Dawn pilot study? Dawn Education and Public Outreach (E/PO) is committed to offering materials that are of high quality and utility and reflect the needs of formal and informal science educators. To this end, the E/PO team will conduct a pilot test of the Web-based *Find a Meteorite* activity during the fall of 2006 and currently is seeking educators to participate in informal settings such as science centers, museums, afterschool programs, and youth groups to test the activity with 8th grade-level children (i.e., ages 12–13). For more details and to sign up, visit:

<http://dawn.jpl.nasa.gov/getInvolved/index.asp>

To preview the *Find a Meteorite* interactive learning tool, go to:

<http://dawn.jpl.nasa.gov/Meteorite/index.asp>

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### **ASK A SCIENTIST**

Have a question about the Dawn mission and want to communicate directly with a member of the Dawn mission team? Click on the "Ask a Scientist" link located at the bottom of the Dawn Web site at: <http://dawn.jpl.nasa.gov>

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### **TELL US WHAT YOU THINK**

Continually seeking ways to improve the mission Web site, Dawn Education and Public Outreach is eager to receive your feedback. Please share your thoughts by completing a brief survey at:  
<http://survey.mcrel.org/external/dawn/website505.htm>

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#### **SUBSCRIPTION INFORMATION**

Please forward this e-mail to share with others interested in NASA missions. New subscribers may join the Dawn mission e-news mailing list on our Web site at:  
[http://dawn.jpl.nasa.gov/DawnMedia/e\\_news.asp](http://dawn.jpl.nasa.gov/DawnMedia/e_news.asp)

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Dawn Mission Outreach E-News features information about the mission, its outreach Web site, and products, services, and materials available from the Dawn Education and Public Outreach (E/PO) team. Dawn is the ninth Discovery mission in NASA's Science Mission Directorate and is a collaborative partnership made up of the University of California, Los Angeles; Jet Propulsion Laboratory; Orbital Sciences Corporation; Los Alamos National Laboratory; German Aerospace Center; Max Planck Institute for Solar System Research; Italian Space Agency; and Italian National Institute of Astrophysics. Dawn outreach materials are developed under contract by Mid-continent Research for Education and Learning (McREL), Denver, CO.